

REMARKS

Claims 1-30 are pending in the present application. Claim 1 has been amended. Applicant respectfully requests that the above-identified application be reconsidered in view of the foregoing amendment and the following remarks.

The 35 U.S.C. § 103(a) Rejections

Claims 1-22 and 24-30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,819,857 to Inokuchi ("Inokuchi") in view of U.S. Patent No. 5,600,781 to Root et al. ("Root"). Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Inokuchi in view of Root in further view of U.S. Patent No. 5,546,538 to Cobbley et al. ("Cobbley"). Claim 1 was further rejected under 35 U.S.C. § 102(b) as being anticipated by Root.

The Present Invention

The present invention relates to a magnetic ink encoding system where an information signal is stored in the magnetic ink. In a magnetic ink system, a pen or other magnetic ink writing head may leave an ink substance upon a surface. The magnetic ink substance contains particles of a magnetic substance which are magnetized and can later be detected by a magnetic sensor. In an embodiment of the present invention, when ink is deposited upon a surface by a magnetic pen, the magnetic pen also magnetizes the ink with a time-varying magnetic field (e.g., specification page 4, line 32 – page 5, line 3).

Claim 1 has been amended to define "magnetic ink" in a manner consistent with the specification (see, e.g. page 1, lines 11-13 of the present application). That is, magnetic ink is defined as including a magnetic substance. The remaining independent claims, claims 5, 6, 20 and 24, refer to the application of a magnetic ink to a surface. Moreover, claims 6 and 20 refer to a penpoint adapted to apply magnetic ink to a surface.

The Inokuchi, Root, and Cobbley references, taken singularly or in combination, fail to teach or suggest magnetic ink as recited in each of the pending claims.

The Inokuchi Reference

Inokuchi describes an electromagnetic induction-type pattern input apparatus. The input apparatus includes what is referred to as "an electromagnetic pen" and a tablet including a plurality of conductors. Rather than a standard ink-writing instrument, the "electromagnetic pen" is actually a rod with a coil wound up around the rod, wherein the rod is excited by a signal that may be produced by a gate pulse generator electrically connected to the rod. (Inokuchi; Figure 4, Abstract). Generally, the pen does not leave an ink deposit. (Inokuchi; Specification; Figure 7). The only mention of ink in Inokuchi does not mention the ink itself being magnetized or being capable of being magnetized. Rather, the sole purpose for the ink is to leave a residue visible to the naked human eye. (Inokuchi; Figure 9, col. 5, lines 53-60). No apparatus or method disclosed in Inokuchi leaves a magnetized ink deposit, or involves the use of magnetic ink.

The Cobbley Reference

Cobbley refers, in part, to handwriting analysis software. At Col. 3, lines 26-32, a user enters data into the laptop computer with a stylus. Such a stylus is typically a solid piece of material (e.g., a plastic material), that does not output any ink. The analysis performed by the software is based on the interaction between the stylus 25 and the display 23.

The Root Reference

Root refers to a method and apparatus for creating a portable personalized operating environment. In one embodiment, information concerning a user's handwriting style may be stored on a PCMCIA card (e.g. card 205 in Fig. 2). When the user comes to

a new computer, he/she inserts the PCMCIA card into that computer. This new computer then uses the parameters stored on the card to recognize the user's handwriting. (See Col. 5, lines 29-42). One advantage of this system, is that when a user comes upon a new computer system, the standard steps necessary for the computer to recognize the user's handwriting need not be performed.

Argument

None of the cited references teach or even remotely suggest magnetic ink as recited in the pending claims. As discussed above, magnetic ink is a substance in which an information signal may be stored.

At page 2 of the present Office Action, it states that "Inokuchi discloses, an apparatus for storage of information comprising: magnetic ink having a stored information signal, (see Fig. 10, column 6, lines 22-30, the outputs of three bits from comparators 104, are temporarily "store" in a first register)." Looking at Fig. 10, driving circuit 101 drives a coil interfacing with pen 11. The pen 11, is referred to as an electromagnetic pen (see, e.g., col. 3, lines 53-63). Looking again at Fig. 10, three conductive loops are provided as part of the writing tablet 8. The section cited in the Office Action refers to sensing, electromagnetically, the interaction of the electromagnetic pen 11 and the conductive loops of the tablet 8. In other words, the magnetic field generated by the structure of the pen interacts with the loops to cause current to flow in the loops. This current is received by sense amps 103 and stored as binary data. There is no magnetic ink described in Inokuchi. The device of Inokuchi works regardless of whether ink is dispensed from pen 11. This is supported, for example, by the description of an electromagnetic pen in Fig. 14, where nothing is mentioned about whether ink flows from the pen or not (See, col. 7, lines 49-57). Thus, there is no disclosure in Inokuchi that its ink includes a magnetic substance or that the magnetic ink has a stored information signal as recited in claim 1. Likewise, for

independent claims 5, 6, 20 and 24, Inokuchi does not refer to magnetizing ink, or varying magnetic flux to a magnetic ink as recited in these claims.

Root fails to make up for the deficiencies of Inokuchi. The Office Action at page 2 states that Root "...teaches (column 5, lines 57-67, handwriting information is stored in a standardized "magnetic ink" format). Though it is true that Root uses the term "magnetic ink," Root is doing so in a different manner. The undersigned suggests that the term "magnetic ink" in Root is referring to the fact that handwriting can be stored digitally, for example, in a magnetic hard disk drive.

Again, each of the pending claims refers to magnetic ink as including a magnetic substance (claim 1), or a substance to be applied to a surface (claims 5, 6, 20 and 24). In using the term "magnetic ink," Root is not referring to a physical substance. Looking at Col. 5, lines 57-67 of Root, it states, in part, that "handwriting information is stored in a standardized magnetic ink format know[n] as the 'JOT' format."

The undersigned has located a document that includes sections of, and describes, the JOT specification and has submitted it in an Information Disclosure Statement. Pages 3-4 describe the supported properties for the specification. These include the type of pen tip, the timing of the strokes (e.g., is a line drawn quickly or slowly), the angle of the stylus, the pressure exerted on the stylus (e.g., through the height of the pen over the digitizer), etc. As seen from the list, and the entire document, the only properties of the ink itself that appear to be taken into consideration are the color and its opacity.

Looking at Root, at Col. 5, lines 62-63, Root describes the JOT specification as referring to "pen pressure, the timing of each pen stroke, [and] the ordering of the strokes" and also does not mention ink properties. Indeed, looking at Root, there is no disclosure of an ink substance to be applied to a surface. The stylus 120 of Fig. 1 does not output ink. Certainly the "fax Bob" message on screen 130 is an electronic display and not magnetic ink. Accordingly, neither Root or the JOT specification refer to ink that includes a magnetic substance or magnetic ink that has a stored information signal as

recited in claim 1. Likewise, for independent claims 5, 6, 20 and 24, neither Root nor the JOT specification refer to magnetizing ink, or varying magnetic flux to a magnetic ink as recited in these claims.

Finally, Cobbley fails to make up for the deficiencies of Inokuchi and Root. Cobbley discloses a system for processing handwriting that is written on an electronic tablet. Like Inokuchi and Root, Cobbley does not disclose any magnetic ink technology such as that recited in the pending claims.

In view of the above, reconsideration and withdrawal of the rejection of claims 1, 5, 6, 20, and 24 and claims 2-4, 7-19, 21-23, and 25-30 which ultimately depend from claims 1, 6, 20, and 24, respectively under 35 U.S.C. § 103(a) is respectfully requested.

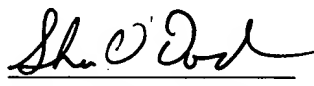
CONCLUSION

For all the above reasons, the Applicants respectfully submit that this application is now in condition for allowance. A Notice of Allowance is earnestly solicited.

The Examiner is invited to contact the undersigned at (408) 975-7500 to discuss any matter concerning this application. The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 11-0600.

Respectfully submitted,
KENYON & KENYON

Dated: 3/3/03

By: 
Shawn W. O'Dowd
Reg. No. 34,687

KENYON & KENYON
1500 K Street, NW
Suite 700
Washington, DC 20005-1257
(202) 220-4200 telephone
(202) 220-4201 facsimile
SJ1-41071

Marked-Up Version of Amended Claims

1. (Amended) An apparatus for storage of information, comprising:

magnetic ink, including a magnetic substance, said magnetic ink

having a stored information signal.